



COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

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January 26, 2006

Mr. Joel H. Peck
Clerk
State Corporation Commission
1300 East Main Street
Richmond, Virginia 23219

RE: Supplemental Review of a 7th Alternative for Pleasant View-Hamilton 230 kV Transmission Line; proposed by Virginia Electric and Power Company: Application No. 228 -State Corporation Commission, Case No. PUE-2005-00018; DEQ-05-133S.

Dear Mr. Peck:

As requested by the State Corporation Commission (SCC), the Department of Environmental Quality (DEQ) has coordinated the review of the 7th Alternative with appropriate state agencies and the locality. The purpose of this Supplemental Review of a 7th Alternative is to develop information for SCC staff about potential impacts to natural resources associated with this Alternative for the proposed transmission line. The 7th Alternative was identified subsequent to DEQ's review of Dominion Virginia Power's earlier application, which identified six alternative routes (DEQ#: 05-133S; comments mailed June 30, 2005).

The SCC Hearing Examiner's October 21, 2005 Ruling (pages 8 & 9) stated that, "in addition to the proposed and alternative routes set forth in the Company's application and prior notice, the Commission is required by statute to also consider the use of the *Washington and Old Dominion Trail* ("*W & OD Trail*" or "*Trail*") between the Pleasant View Substation, located approximately 600-feet west of the intersection of Route 653 and the W & OD Trail, and the proposed new Hamilton Substation site near Purcellville. The Trail is an existing right-of-way, and pursuant to Virginia law must be considered as one alternative for the proposed transmission line."

Based on comments submitted by reviewers, we are providing a summary of potential impacts to natural resources associated with the 7th Alternative of the proposed electric transmission line project. The report includes copies of the comments submitted by reviewers regarding the 7th Alternative.

For comments on the six routes identified in Dominion Virginia Power's April 14, 2005 application, please see DEQ's June 30, 2005 response (DEQ#: 05-133S, as above).

Thank you for the opportunity to review this application and related materials. We trust that you will find our report helpful in your certification process. If you have questions, please feel free to call Ellie Irons, Program Manager, Office of Environmental Impact Review (telephone (804) 698-4325) or Ernst Aschenbach of that office (telephone (804) 698-4326).

Sincerely,

Michael P. Murphy, Director
Division of Environmental Enhancement

Enclosures

cc: Andrew K. Zadnik, DGIF
Robert S. Munson, DCR
Scott Bedwell, DCR
Rene Hypes, DCR
Steve Pellei, VDH
Allen R. Brockman, DEQ-Waste
Catherine M. Harold, DEQ-DWQ
John D. Bowden, DEQ-NVRO
Mary T. Stanley, VDOT
Ben McGinnis, MRC
Roger Kirchen, DHR
Alice R.T. Baird, DCR-DCBLA
Julie Pastor, Loudoun County
G. Mark Gibb, Northern Virginia Regional Commission
Wayne Smith, SCC
John Bailey, Dominion Virginia Power Company

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COMMENTS OF THE DEPARTMENT OF ENVIRONMENTAL QUALITY

Supplemental Review of a 7th Alternative for

Pleasant View-Hamilton 230 kV Transmission Line

in Loudoun County, Virginia

State Corporation Commission Case No PUE-2005-00018

Virginia Electric and Power Company, Application No. 228

Previously reviewed under; DEQ-05-133S

The comments which follow are intended to provide technical assistance to the State Corporation Commission in evaluating this project. The following state agencies and locality joined in this review:

Department of Environmental Quality
Department of Game and Inland Fisheries
Department of Conservation and Recreation
Department of Health
Department of Transportation
Marine Resources Commission
Department of Historic Resources
Department of Mines, Minerals and Energy
Loudoun County

In addition, the Department of Forestry and the Northern Virginia Regional Commission were invited to comment.

The information summarized in DEQ's Supplemental Review of the 7th Alternative is based on the following information, provided by the sources identified below:

- Correspondence from the SCC, including the Hearing Examiner's Rulings:
 - a) SCC November 1, 2005 letter to DEQ.
 - b) SCC Hearing Examiner's Ruling dated October 28, 2005.
 - c) SCC Hearing Examiner's Ruling dated October 21, 2005.

- November 23, 2005 email from Virginia Electric and Power Company (hereinafter “Dominion” or “the Applicant”) to DEQ (titled: “DEQ Information regarding the W & OD Trail Route”) provided instructions for accessing a document titled “*W & OD Trail Route Supplement to Routing Study and Environmental Report*,” posted on Dominion’s ftp site:

<ftp://ftp.dom.com/>.

After successful log-on, reviewers are instructed to go directly to folder titled “*Dominion 230 kV Powerline W & OD Trail Information*.” According to Dominion, all relevant project information is within this folder. Anything outside this folder pertains to other projects, and is not germane to this project. Dominion’s website includes folders containing this information:

- a) GIS Files.
 - b) Wetland Information.
 - c) Visual Simulations containing Dominion’s PowerPoint™ presentation titled “*W AND OD VISUAL SIMULATION.pdf*”.
 - d) Transmission Line Route Map containing Dominion’s Figure 3-1 titled “*Alternative Routes_Aerials_0407.pdf*” (attached below).
- Dominion’s November 28, 2005 email (attached) to DEQ, (titled: “*Link to powerline website*”) provided instructions for accessing Dominion’s April 14, 2005 application to the SCC, and general project background posted on Dominion’s website:

<http://www.dom.com/about/elec-transmission/powerline/westloudoun/sccapp.jsp>

Description of the 7th Alternative:

According to the “W & OD Trail Route Supplement to Routing Study and Environmental Report” (pages 4-1 to 4-2):

“Dominion originally intended to use its existing transmission easement along the W & OD Trail for the proposed transmission line. In order to identify the potential impacts of building the transmission line along the W & OD Trail, Dominion evaluated a route using the trail and included that information in Table 3-5 (Segment Data), Table 3-7 (Route Data), and Table 3-9 (Selected Data of the Analysis of Alternatives). The data for the final routes, as well as the Trail Route, is provided in Table 4-1 (Summary Data).

The Trail Route evaluated by the Company begins at Dominion’s Hamilton Substation site east of the intersection of Bypass Route 7 and Rte. 287 in western Loudoun County. The route proceeds eastward on the original 100-foot wide W & OD railroad corridor for approximately four miles, passing through Paeonian Springs and crossing Rte. 704 (Hamilton Station Road), Rte. 9 (Charles Town Pike), and Bypass Rte. 7. The route continues eastward on the railroad corridor approximately two and a half miles paralleling portions of Rte. 699 (Dry Mill Road) to the western side of

Leesburg. The route continues to proceed eastward on the railroad corridor approximately two and one half miles through Leesburg crossing Bypass Rte. 7, Rte. 15 (King Street), and Bypass Rte. 7 on the east side of Leesburg. The final segment of the route continues eastward approximately two miles to Pleasant View Substation, which is located on Rte. 653 (Cochran Mill Road). This final segment of the route would not utilize the complete 100-foot width of the original railroad corridor. A portion of the northern half of the railroad corridor (approximately 30-feet) would be utilized for this project. The remaining 50-feet for the project would be obtained from the northern adjacent property owner(s). A description of the potential impacts that would result from the use of the Trail Route is included in this supplemental version of the Routing Study and Environmental Report under each subsection in italics. Following is a brief description of the W & OD Trail taken from the Description of the Project Area in the above report.

The W & OD Trail is a major recreational feature in the project area. This multipurpose trail provides recreational opportunities to people of northern Virginia both inside and outside the project area. The W & OD Trail is owned by the Northern Virginia Regional Park Authority (NVRPA) and extends 45 miles from Alexandria on the east end to Purcellville on the west end. The trail is located within the corridor of the W & OD Railroad, which operated from 1859 until 1968 when the railroad was abandoned and the property was purchased by Dominion. In 1977, NVRPA reached an agreement with Dominion to purchase the right-of-way for use as a recreational trail with the condition that Dominion retain an easement for existing and future overhead power lines. The first segment of the trail was built in 1974 in the City of Falls Church as a test to determine if such a trail would be used by the public. The remainder of the W & OD Trail was completed in 1988 in Purcellville. Today, Dominion maintains overhead electric transmission lines along the trail for approximately thirty miles from Arlington to the Company's existing Pleasant View Substation in eastern Loudoun County. Additionally, Dominion has electric distribution lines on and adjacent to portions of the trail from Pleasant View Substation to Purcellville.

The trail was designated a National Recreation Trail in 1987 by the U.S. Department of the Interior. The rail bed and former W & OD right-of-way has been surveyed and determined eligible for listing on the state and national register of historic places, as well as various buildings, bridges, and culverts associated with the W & OD Railroad.

The Trail Route provides an option where little new right-of-way will have to be acquired. The route begins at the Hamilton Substation site and proceeds eastward on the original 100' wide W & OD railroad corridor approximately eleven miles passing through Paeonian Springs, crossing Rte. 9 (Charles Town Pike), Bypass Rte. 7 and through Leesburg. For the final two miles of the route on the east side of Leesburg new right-of-way on the north side of the trail would be acquired to shift the route slightly north and only utilize a portion of the old railroad right-of-way into Pleasant View Substation ("W & OD Trail Route Supplement to Routing Study and Environmental Report," page 4-6). "

The "W & OD Trail Route Supplement to Routing Study and Environmental Report" (page 4-2), refers to Figure 3-1 (Dominion Virginia Power, Pleasant View to Hamilton, Alternative Routes), showing the trail in yellow.

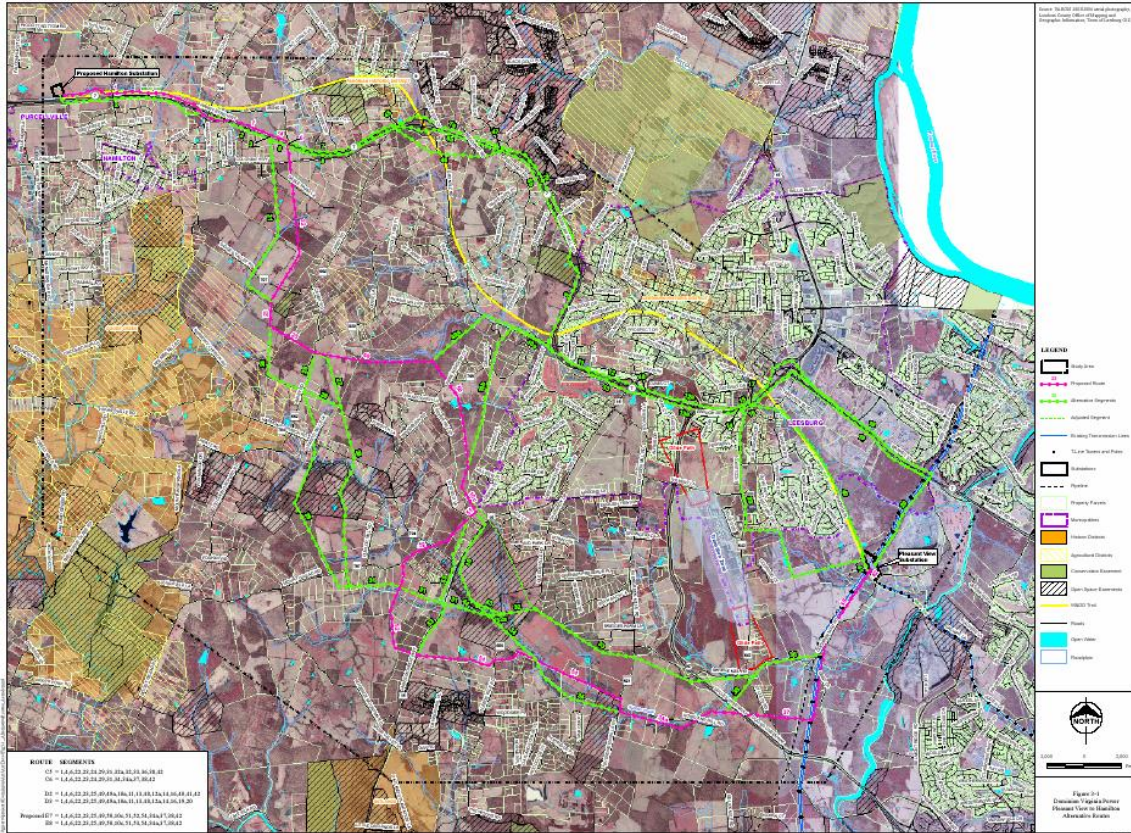


Figure 3-1. Dominion Virginia Power, Pleasant View to Hamilton, Alternative Routes.

List of Permits or Approvals Required

The following list presents the summary of permits and approvals applicable to the 7th Alternative along the W & OD Trail. More details on these requirements appear in the “Regulatory and Coordination Needs” section of these Comments (pages 27 through 29).

1. Water Resources and Wetlands. The project may require a Virginia Water Protection Permit from DEQ's Northern Virginia Regional Office. See "Regulatory and Coordination Needs," Item 1, on page 27.

2. Subaqueous Lands. If any portion of the subject project involves any encroachments channelward of ordinary highwater along natural rivers and streams, a permit may be required by Virginia Marine Resources Commission. See “Regulatory and Coordination Needs,” Item 3, on page 28.

3. Air Quality Permits. If open burning of construction or other wastes is contemplated, Dominion may need to obtain an open burning permit from DEQ's Northern Virginia Regional Office. In addition, fuel-burning equipment used in the project may require permitting. See "Regulatory and Coordination Needs," Item 5, on page 28.

4. Erosion and Sediment Control Plan; Stormwater Management. Dominion must comply with the Erosion and Sediment Control Regulations and the regulations governing permits for discharges of stormwater from construction activities. See “Regulatory and Coordination Needs,” Items 2(a) and 2(b), on page 27.

5. Solid and Hazardous Waste Management. Any soil that is suspected of contamination or wastes that are generated must be tested and disposed of in accordance with applicable Federal, State, and local laws and regulations. See “Regulatory and Coordination Needs,” Item 4, on page 28.

6. National Historic Preservation Act. Section 106 of the National Historic Preservation Act will apply if there is any federal involvement such as permitting from the U.S. Army Corps of Engineers. See “Regulatory and Coordination Needs,” Item 7, on page 29.

7. Protected Species. Dominion must comply with the Federal Endangered Species Act, and Virginia protected species legislation. See “Environmental Impacts and Mitigation,” Items 5 and 6 on pages 12 through 20; and “Regulatory and Coordination Needs,” Item 8, on page 29.

Summary of Recommendations

Based on the information and analysis submitted by reviewing agencies on the Alternative along the W & OD Trail, we have several recommendations for consideration by the SCC as conditions of the Certificate of Public Convenience and Necessity under review by the Commission for this project. These recommendations are discussed in the Environmental Impacts and Mitigation section of these comments. It should be noted that these recommendations are in addition to regulatory requirements. The summary of recommendations follows:

1. Mapping: Provide maps showing the final, proposed alignment to the Virginia Department of Health in order to determine potential impact of this proposed alternative to public water supplies. See “Environmental Impacts and Mitigation,” Item 1(d), on page 9.

2. Comprehensive Natural Heritage Inventory: Conduct an inventory of suitable habitat and natural heritage resources in the study area to include, but not limited to, Diabase global and state rare plant species and habitat assessments for protected species: the Loggerhead Shrike, Upland Sandpiper, and the Wood Turtle. See “Environmental Impacts and Mitigation,” Items 5 and 6 on pages 12 through 20.

3. Protect Aquatic Life: Coordinate with the Department of Game and Inland Fisheries regarding potential adverse impacts upon freshwater mussels if any

crossings or other activities are proposed within perennial streams. See “Environmental Impacts and Mitigation,” Item 6 on pages 16 through 20.

4. In-stream Work: Constraints and Precautions: Take precautions to protect water quality, habitat, and aquatic resources from construction impacts by adopting recommendations from the Department of Environmental Quality and the Department of Game and Inland Fisheries. See “Environmental Impacts and Mitigation,” recommendations in Item 1 on pages 7 through 9; and Item 6 (c) on page 19.

5. Delineation and Verification of Stream and Wetland Impacts: Field delineate and verify all wetlands and streams in the project corridor using accepted methods and procedures prior to commencing construction activities. See “Environmental Impacts and Mitigation,” Item 1 on page 8.

7. Restrictions on Use of Herbicides: No herbicides must be used within 100-feet of any wetland or stream. See “Environmental Impacts and Mitigation,” recommendations in Item 1 on page 8; and Item 6 on page 16.

8. Transportation: Coordinate closely with the Virginia Department of Transportation to ensure that transportation issues are adequately addressed. See “Environmental Impacts and Mitigation,” Item 10 on page 22; and “Regulatory and Coordination Needs,” Item 6, on pages 28 and 29.

9. Eliminate Potential Impact to the Washington and Old Dominion Trail: Eliminate routes which locate the transmission line in the W & OD right-of-way to reduce the potential impacts on significant historic resources and the recreational and public commuting use of the trail. This recommendation is consistent with those reported in DEQ’s June 30, 2005 correspondence on the six routes identified in Dominion Virginia Power’s April 14, 2005 application. See “Environmental Impacts and Mitigation,” Item 9 on pages 21 and 22; Item 11 on pages 22 through 24; and Item 14 on pages 25 through 27.

10. Cultural Resources. Conduct field investigations to identify and evaluate cultural resources to include architectural, archeological, intact cultural landscapes and rural districts. See “Environmental Impacts and Mitigation,” Item 9 on pages 21 and 22.

11. State Scenic and Recreational Facilities. Preserve the scenic qualities of the roadways designated as Virginia Scenic Byways. See “Environmental Impacts and Mitigation,” Item 11 on pages 22 through 24.

12. Consider Other Alternatives: Evaluate other alternatives such as using alternate routes (for example, along Route 7) and burying portions of the line to avoid and minimize potential adverse impacts on cultural resources. This recommendation is consistent with those reported in DEQ’s June 30, 2005 correspondence. See “Environmental Impacts and Mitigation,” Item 9 on pages 21 and 22; and Item 14 on pages 25 through 27.

13. Pollution Prevention. Implement pollution prevention principles, to the extent practicable, including the reduction, reuse, and recycling of all solid wastes generated. See “Environmental Impacts and Mitigation,” Item 4 on page 12; and Item 12 on page 24.

14. Regional and Local Concerns: Coordinate closely with Loudoun County to ensure that local requirements are adequately addressed. See “Environmental Impacts and Mitigation,” Item 14 on pages 25 through 27; and “Regulatory and Coordination Needs,” Item 9 on page 29.

Environmental Impacts and Mitigation

1. Wetlands and Water Quality.

1(a) Wetland Impact Consultation: In accordance with the *Memorandum of Agreement regarding Wetland Impact Consultation* between Department of Environmental Quality and the State Corporation Commission, DEQ’s Division of Water Quality (DEQ – DWQ) reviewed the wetlands impact analysis information, and a revised Route Study and Environmental Report (dated November 2005, and provided by Dominion via secure website). The DEQ – DWQ also compared this new information with previous information submitted by Dominion.

Summary of DEQ – DWQ Findings: According to the revised Route Study and Environmental Report, the newly proposed 7th Alternative will:

- Cross fewer streams than E7-preferred route (3 instead of 6 stream crossings).
- Cross fewer linear feet of floodplains than E7-preferred route (361-linear feet, instead of 7,878-linear feet);
- Cross fewer linear feet of wetlands than E7-preferred route (194-linear feet, instead of 249-linear feet).
- Based on review of previous information in comparison with the newly proposed 7th Alternative, the newly proposed 7th Alternative does not have significantly more or less potential wetland impacts that other alignments considered.
- The total probability of wetland occurrence within the 7th Alternative appears to be significant (e.g., 30 ± acres).
- Generally, the majority of potential of wetland occurrence is in the “low” and “medium” probability categories.
- In terms of potential wetland impact, the preferred alignment does not have significantly greater probabilities of wetland occurrence than do the other alignments, including the 7th Alternative.
- The 7th Alternative does have fewer stream crossings. However, most of the stream crossings for all alignments will be overhead lines with few, if any, structures in the stream beds. Therefore, DEQ – DWQ does not recommend one alignment over another.

1(b) Potential Permits: If the project qualifies for Nationwide Permit 12 (NWP 12) from the U.S. Army Corps of Engineers (the Corps) and the impacts to perennial streams are less than 500-linear feet and impacts to intermittent streams are less than 1500-linear feet, then no Virginia Water Protection (VWP) permit is necessary. A VWP individual permit will be required from DEQ if:

- (i) stream impacts exceed the thresholds outlined above,
- (ii) the proponent proposes to impact more than one (1) acre of wetlands, or
- (iii) the project does not qualify for a NWP 12 from the Corps.

Questions on the VWP permit should be directed to DEQ's Water Quality Division (Catherine M. Harold, telephone (804) 698-4375 or David Davis, telephone (804) 698-4105) or DEQ's Northern Regional Office (Joan Crowther, telephone (703) 583-3801).

1(c) Recommendations: According to DEQ – DWQ's November 29, 2005 letter, Dominion has stated to DEQ – DWQ that any forested wetlands impacted by the project will be converted and maintained as scrub-shrub wetlands. Therefore, DEQ – DWQ reports that compensation for these conversions impacts will not be required, according to DEQ's regulations. DEQ – DWQ further reports that Dominion has committed to delineate all wetlands and stream crossings within the proposed alignment and to submit a Joint Permit Application (JPA) for all necessary permits and approvals. DEQ – DWQ offers the following recommendations, based upon review of all the information provided by Dominion:

- Prior to commencing project work, all wetlands and streams within the project corridor should be field delineated and verified using accepted methods and procedures.
- Wetland and stream impacts should be avoided and minimized to the maximum extent practicable.
- If conversion of forested wetlands to emergent wetlands becomes necessary, compensation for these conversion impacts will be required.
- Any temporary impacts to surface waters associated with this project shall require restoration to pre-existing conditions.
- No activity may substantially disrupt the movement of aquatic life indigenous to the water body, including those species, which normally migrate through the area, unless the primary purpose of the activity is to impound water. Culverts placed in streams must be installed to maintain low-flow conditions. No activity may cause more than minimal adverse effect on navigation. Furthermore the activity must not impede

the passage of normal or expected high flows, and the structure or discharge must withstand expected high flows.

- Erosion and sedimentation controls shall be designed in accordance with the *Virginia Erosion and Sediment Control Handbook*, Third Edition, 1992. These controls shall be placed prior to clearing and grading and maintained in good working order to minimize impacts to state waters. These controls shall remain in place until the area is stabilized and shall then be removed. Any exposed slopes and streambanks shall be stabilized immediately upon completion of work in each permitted area. All denuded areas shall be properly stabilized in accordance with the *Virginia Erosion and Sediment Control Handbook*, Third Edition, 1992.
- No machinery may enter surface waters, unless authorized by a VWP permit.
- Heavy equipment in temporarily impacted surface waters shall be placed on mats, geotextile fabric, or other suitable material, to minimize soil disturbance to the maximum extent practicable. Equipment and materials shall be removed immediately upon completion of work.
- Any areas converted from forested wetlands shall be maintained as scrub-shrub or emergent wetlands by either mechanical methods or by the application of herbicides only approved for use in or near aquatic environments.

1(d) Public water Supply: In response to DEQ's request for comments on the 7th Alternative, the Virginia Department of Health – Office of Drinking Water (VDH – ODW) stated that it has no objections. However, as stated in DEQ's June 30, 2005 correspondence, the Department needs maps of the proposed final alignment in order to assess the impacts on public water systems. For more information contact Steve Pellei, Director – Division of Technical Services at the VDH – ODW at (804) 864-7489.

2. Subaqueous Lands. The Marine Resources Commission reported that, pursuant to Section 28.2-1204 of the Code of Virginia, the Commission has jurisdiction over any encroachments in, on, or over any State-owned rivers, streams, or creeks in the Commonwealth. Accordingly, if any portion of the subject project involves any encroachments channelward of ordinary highwater along natural rivers and streams, a permit may be required by VMRC. See Regulatory and Coordination Needs, Item 3, below.

3. Air Quality. In response to the request for comments on the 7th Alternative, DEQ's Air Division reported that it has no additional comments. The Air Quality requirements applicable to the 7th Alternative are similar to those reported in DEQ's June 30, 2005 correspondence, because all routes being considered are located in an area designated as non-attainment for the ozone 8-hour air quality

standard. Therefore, according to DEQ's Air Division, the applicant should take all reasonable precautions to limit emissions of volatile organic compounds and oxides of nitrogen.

3(a) Open Burning: If project activities include the burning of construction or demolition material, this activity must meet the requirements of the Regulations for open burning (9 VAC 5-40-5600 et seq.), and it may require a permit. See Regulatory and Coordination Needs, Item 5, below. The Regulations provide for, but do not require, the local adoption of a model ordinance concerning open burning. The applicant should contact Loudoun County officials to determine what local requirements, if any, exist. The model ordinance includes, but is not limited to, the following provisions:

- All reasonable effort shall be made to minimize the amount of material burned, with the number and size of the debris piles;
- The material to be burned shall consist of brush, stumps and similar debris waste and clean burning demolition material;
- The burning shall be at least 500-feet from any occupied building unless the occupants have given prior permission, other than a building located on the property on which the burning is conducted;
- The burning shall be conducted at the greatest distance practicable from highways and air fields;
- The burning shall be attended at all times and conducted to ensure the best possible combustion with a minimum of smoke being produced;
- The burning shall not be allowed to smolder beyond the minimum period of time necessary for the destruction of the materials; and
- The burning shall be conducted only when the prevailing winds are away from any city, town or built-up area.

3(b) Fugitive Dust Control: During construction, fugitive dust must be kept to a minimum by using control methods outlined in 9 VAC 5-50-60 et seq. of the Regulations for the Control and Abatement of Air Pollution. These precautions include, but are not limited to, the following:

- Use, where possible, of water or chemicals for dust control;
- Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty materials;
- Covering of open equipment for conveying materials; and
- Prompt removal of spilled or tracked dirt or other materials from paved streets and removal of dried sediments resulting from soil erosion.

4. Solid and Hazardous Waste Management.

4(a) General. In response to the request for comments on the 7th Alternative, DEQ's Waste Division stated that, both solid waste and hazardous waste issues and sites were addressed to some extent in the report. On page 3 of Volume II of the report, Dominion states that it reviewed waste data bases for

this area of Loudoun County and found no Superfund, solid waste, or hazardous waste sites within either the proposed or alternate routes for the line. The report further states that the DEQ Northern Regional Office was contacted for information on waste sites in the project area. DEQ's Waste Division staff conducted a cursory review of its data files and did not identify any waste sites that would affect or be affected by the proposed construction.

4(b) DEQ's Federal Facilities Restoration Program (DEQ – FFR), a section of DEQ's Waste Division, found that the project site is listed as a Formerly Used Defense Site (FUDS) File #CO3VA0249 (Nike Site W-BA-74). According to the referenced FUDS File, the United States Department of Defense (DoD) operated a 17.09 Nike missile launch site from 1954 to May 1975. The former DoD site, included two Nike missile launchers and rubble associated with four former buildings (presumably within the launch area).

DEQ – FFR files indicate that DoD still owns the former control area. The location of the two underground launchers, four former buildings and control area was not defined in the referenced FUDS file. DoD recommended that the two former missile launchers be demolished to a depth of two feet below ground surface (bgs). DEQ has no evidence that DoD demolished the former launchers.

The United States Army Corps of Engineers (USACOE) conducted a study (pre-December 1986) which determined that "...no hazardous levels of contamination were identified at the site." DEQ has no evidence/data to confirm DoD's assertion.

Subsequent to DoD use, the Nike site was ultimately transferred to the Fairfax County Park Authority. While the location of the former Nike launchers, control area, and associated buildings were not defined in the referenced FUDS file, the SCC and Dominion should be aware that some remnants of historic DoD activities may be encountered during the installation of the transmission lines, if this alternative is implemented. See also Regulatory and Coordination Needs, Section 4, below.

4(c) Soil that is suspected of contamination or wastes that are generated must be tested and disposed of in accordance with applicable Federal, State, and local laws and regulations. Some of the applicable state laws and regulations are: Virginia Waste Management Act, Code of Virginia Section 10.1-1400 *et seq.*; Virginia Hazardous Waste Management Regulations (VHWMR) (9VAC 20-60); Virginia Solid Waste Management Regulations (VSWMR) (9VAC 20-80); Virginia Regulations for the Transportation of Hazardous Materials (9VAC 20-110). Some of the applicable Federal laws and regulations are: the Resource Conservation and Recovery Act (RCRA), 42 U.S.C. Section 6901 *et seq.*, and the applicable regulations contained in Title 40 of the Code of Federal Regulations; and the U.S. Department of Transportation Rules for Transportation of Hazardous materials, 49 CFR Part 107.

4(d) Asbestos and Lead-based Paint. Any structures to be removed/renovated/demolished should be checked for asbestos-containing materials (ACM) and lead-based paint (LBP) prior to these activities. If ACM or LBP are found, in addition to the federal waste-related regulations mentioned above, State regulations 9VAC 20-80-640 for ACM and 9VAC 20-60-261 for LBP must be followed.

4(e) Pollution Prevention. Please note that DEQ encourages all construction projects and facilities to implement pollution prevention principles, including the reduction, reuse, and recycling of all solid wastes generated. All generation of hazardous wastes should be minimized and handled appropriately. See also Environmental Impacts and Mitigation, Item 12, below.

5. Natural Heritage Resources. The Department of Conservation and Recreation (DCR) strives to preserve and protect the environment of the Commonwealth of Virginia and advocate the wise use of its scenic, cultural, recreational, and natural heritage resources. The DCR's Division of Natural Heritage (DCR – DNH) maintains a Biotics Data System documenting occurrences of natural heritage resources under its jurisdiction. "Natural heritage resources" are defined as the habitat of rare, threatened, or endangered plant and animal species, unique or exemplary natural communities, significant geologic formations, and similar features of scientific interest.

In response to DEQ's request for comments on the 7th Alternative, DCR – DNH has searched its Biotics Data System for occurrences of natural heritage resources in from the area outlined on the submitted map. DCR reiterates its June 2005 comments for this project. "According to the information currently in DCR's files, the following natural heritage resources have been documented in the project vicinity and may occur within the study area if suitable habitat exists:

Common Name	Scientific Name	Global Rank	State Rank	Federal Status	State Status
Upland Sandpiper	<i>Bartramia longicauda</i>	G5	S1S2	NL	LT
Green Floater	<i>Lasmigona subviridis</i>	G3	S2	NL	SC
Wood Turtle	<i>Glyptemys insculpta</i>	G4	S2	NL	LT
Fowl Bluegrass	<i>Poa palustris</i>	G5	S1S2	NL	NL
White Trout-lily	<i>Erythronium albidum</i>	G5	S2	NL	NL

5(a) Upland Sandpipers (*Lasmigona subviridis*) nest in open farming areas with mixed habitats that include medium-height grasses and fallow or early-stage old-fields. Plowed fields and/or short grass, heavily grazed pastures, or sod farms, as well as airports, are also used, especially during migration. The nest is a cup pressed into the roots of a clump of grass or a slight hollow scooped in the ground and lined with fine grasses in dense growth. Threats to the Upland Sandpiper include loss of nesting habitat as preferred field habitats are changed to other land uses such as development (Bazuin, 1991). Please

note that this species is currently classified as threatened by the Virginia Department of Game and Inland Fisheries (VDGIF). The Upland Sandpiper may occur in open areas of the study area. DCR recommends coordination with the VDGIF to ensure compliance with protected species legislation. See also Environmental Impacts and Mitigation, Item 6, below.

5(b) The Green Floater (*Lasmigona subviridis*), a rare freshwater mussel, ranges from New York to North Carolina in the Atlantic Slope drainages, as well as the New and Kanawha River systems in Virginia and West Virginia. Throughout its range, the green floater appears to prefer the pools and eddies with gravelly and sandy bottoms of smaller rivers and creeks or smaller channels of large rivers (Ortman, 1919). According to Riddick (1973), in central Virginia, the green floater prefers habitats with gravel or sand bottoms in small to medium-sized streams. Green floaters are small, usually reaching a length less than 55 mm. The color on the shell varies from pale yellow to brownish green. There may be wide green or blackish rays on the shell surface, mostly on juveniles (Kitchel, 1991). Please note that this species is currently classified as a special concern species by the Virginia Department of Game and Inland Fisheries (VDGIF); however, this designation has no official legal status.

5(c) Mussels: Considered good indicators of the health of aquatic ecosystems, freshwater mussels are dependent on good water quality, good physical habitat conditions, and an environment that will support populations of host fish species (Williams et al., 1993). Because mussels are sedentary organisms, they are sensitive to water quality degradation related to increased sedimentation and pollution. They are also sensitive to habitat destruction through dam construction, channelization, dredging, and the invasion of exotic mollusk species.

5(d) Wood turtle (*Lasmigona subviridis*) inhabits forested floodplains and nearby fields, wet meadows, and farmlands (Mitchell, 1994). As this species over-winters on the bottoms of creeks and streams, a primary habitat requirement is the presence of water (Mitchell, 1994). Please note that the wood turtle is classified as threatened by the Virginia Department of Game and Inland Fisheries (VDGIF). Due to the legal status of the wood turtle, DCR recommends coordination with VDGIF to ensure compliance with protected species legislation. See also Environmental Impacts and Mitigation, Item 6, below.

5(e) Fowl bluegrass (*Poa palustris*), a perennial grass, occurs in damp soils on streambanks or wet meadows (Gleason, 1952; Radford, 1968) and is currently known in only thirteen locations in Virginia.

5(f) White trout-lily (*Erythronium albidum*) occurs in alluvial woods, coves, and moist woodlands (Gleason, 1952; Radford et al., 1968). In Virginia, there are currently eleven known occurrences of this species in three counties.

5(g) Semi-open Diabase glades, and Diabase flatrock support rare plant communities. In addition, other rare plants typically associated semi-open Diabase glades in Virginia may occur on the eastern ends of all the alternative alignments if suitable habitat is present. The lines that exhibit the highest potential for these rare plants according to the aerial photographs are E8, D3 and D2. Diabase glades are characterized by historically fire-dominated grassland vegetation on relatively nutrient-rich soils underlain by Triassic bedrock. Diabase flatrock, a hard, dark-colored volcanic rock, is found primarily in northern Virginia counties and is located within the geologic formation known as the Triassic Basin. Where the bedrock is exposed, a distinctive community type of drought-tolerant plants occurs. Diabase flatrocks are extremely rare natural communities that are threatened by activities such as quarrying and road construction (Rawinski, 1995).

In Northern Virginia, Diabase supports occurrences of several global and state rare plant species:

- Earleaf foxglove (*Agalinis auriculata*, G3/S1/NL/NL)
- Blue-hearts (*Buchnera americana*, G3G4/S1/NL/NL)
- Downy phlox (*Phlox pilosa*, G5T5/S2/NL/NL)
- Stiff goldenrod (*Oligoneuron rigidum* var. *rigidum*, G5/S2/NL/NL)
- Marsh hedgenettle (*Stachys pilosa* var. *arenicola*, G5/S1/NL/NL).

5(h) State Natural Area Preserves: DCR-DNH files do not indicate the presence of any State Natural Area Preserves under DCR's jurisdiction in the project vicinity.

5(i) Any absence of data may indicate that the project area has not been surveyed, rather than confirm that the area lacks natural heritage resources. New and updated information is continually added to Biotics. Please contact DCR for an update on this natural heritage information if a significant amount of time passes before it is utilized.

5(j) Threatened and Endangered Plant and Insect Species: The Virginia Department of Agriculture and Consumer Services (VDACS) indicated in its earlier review (DEQ's June 30, 2005 correspondence) that the small whorled pagonia (*Isotria medeoloides*), a state and federally listed threatened plant species, may occur within the alternative project areas.

VDACS made the same determination in relation to the 7th Alternative. Routes that impact wooded, forested, or wetland areas may adversely impact endangered and threatened plant and insect species. A survey of the area would be requested to determine the project's impact on these species.

5(k) Recommendation: Conduct an inventory of natural heritage resources. Due to the potential for this site to support additional populations of natural heritage resources, DCR recommends that an inventory be conducted of suitable habitat in the study area. With the survey results DCR can more

accurately evaluate potential impacts to natural heritage resources and offer specific protection recommendations for minimizing impacts to the documented resources. A list of individuals who are qualified to conduct inventories may be obtained from the United States Fish and Wildlife Service

(<http://viriniafieldoffice.fws.gov/Surveyor.htm>).

See additional discussion on this matter in Environmental Impacts and Mitigation, Item 6, below.

6. Wildlife Resources. The Department of Game and Inland Fisheries, as the Commonwealth's wildlife and freshwater fish management agency, exercises enforcement and regulatory jurisdiction over wildlife and freshwater fish, including state or federally listed endangered or threatened species, but excluding listed insects. The Department (hereinafter "DGIF") is a consulting agency under the U.S. Fish and Wildlife Coordination Act (16 U.S.C. sections 661 et seq.), and provides environmental analysis of projects or permit applications coordinated through the Department of Environmental Quality and several other state and federal agencies. DGIF determines likely impacts upon fish and wildlife resources and habitat, and recommends appropriate measures to avoid, reduce, or compensate for those impacts.

With regard to the 7th Alternative, DGIF indicates, with respect to the loggerhead shrike, that the shrike data in the vicinity of the W & OD Trail are based on a linear roadside survey and not a collection point.

The DGIF also made the following two updates to its previous comments, regarding wood turtles. First, DGIF previously recommended that right-of-way (ROW) maintenance (mowing, vegetation clearing, herbicide application) not occur within 300-feet of a perennial stream during the wood turtle nesting season. DGIF now recommends that distance to be 600-feet from a stream, given appropriate habitat conditions. Second, DGIF previously identified the wood turtle nesting season (the period when the recommended maintenance restrictions would apply referenced above) as April 1 to June 30. DGIF now identifies the wood turtle nesting season as April 1 through October 15.

Finally, according to DGIF, because the W & OD Trail route is in the same general vicinity as the previously identified routes, the remainder of its comments regarding the 7th Alternative remain essentially the same as its earlier comments (see DEQ correspondence dated June 30, 2005). We reiterate those comments below for convenience.

6(a) Analysis. DGIF indicates that the right-of-way (ROW) width will vary from 80 to 100 feet. Within the ROW, trees will be cut at ground level. Debris may be windrowed along the edge of the ROW. Clearing will be done by hand in wetlands and within 100-feet of any stream. Windrowed trees will not be placed in streams or wetlands. Maintenance of the ROW will include hand

cutting, mowing, or herbicide application. All streams along the route can be spanned by the new line.

6(b) Protected Species.

(i) Loggerhead Shrike (State Threatened):

Description: DGIF records indicate the documented occurrence of the State listed Threatened Loggerhead Shrike in the vicinity of this project. As stated above, DGIF's shrike data in the vicinity of the W & OD Trail are based on a linear roadside survey and not a collection point. Loggerhead Shrikes inhabit grassland areas containing scattered trees and shrubs, particularly red cedar and hawthorn, grasses and forbs of short to medium height intermixed with bare ground, as well as utility lines and barbed wire fences.

Recommendations: DGIF recommends that:

- A habitat assessment for shrikes be completed within the project area. Based on its review of this assessment, if there is no appropriate habitat, then DGIF does not anticipate a significant adverse impact upon this species.
- The removal of potential shrike nesting and roosting trees must not occur during the breeding season, defined as April 1 through July 31, if appropriate habitat exists on site.
- A qualified biologist conduct surveys to determine the presence or absence of nesting shrikes, if this time-of-year restriction is not possible.
- The surveys should be completed during the nesting season of the year of construction. If these surveys do not document shrike activity, then the recommended time-of-year restriction will not be necessary.
- To mitigate for the loss of shrike habitat, if applicable, habitat features should be incorporated into the management of the transmission line ROW. This should include scattered or linear plantings of native hawthorns and cedars surrounded by grasses and forbs of short to medium height with some bare ground.
- Maintenance of the ROW (mowing, clearing woody vegetation, herbicide application) should not occur from April 1 through July 31.

(ii) Upland Sandpiper (State listed threatened):

DGIF understands that the Department of Conservation and Recreation - Division of Natural Heritage (DCR-DNH) has documented the occurrence of the State-listed threatened upland sandpiper in the project vicinity.

Recommendations: DGIF recommends that:

- A habitat assessment for these species be completed within the project area. Upland sandpiper nesting habitat in Virginia consists of extensive areas containing medium to tall grasses. This species also will use plowed fields, areas of short grasses, heavily grazed pastures, and sod farms. Based on DGIF's review of the habitat assessment, if there is no appropriate habitat for this species, then DGIF does not anticipate a significant adverse impact upon it.
- Vegetation clearing activities within these areas should not occur during the breeding season, defined as April 1 through July 31, if appropriate habitat exists on-site.
- A qualified biologist conduct surveys to determine the presence or absence of nesting sandpipers, if this time-of-year restriction is not possible. These surveys should be completed during the nesting season of the year of construction. If these surveys do not document sandpiper activity, then the recommended time-of-year restriction will not be necessary.
- Preserve and/or manage an area that provides appropriate habitat for the species to mitigate for the loss of upland sandpiper habitat, if applicable, (April 1 through July 31).

(iii) Wood turtle (State-listed Threatened):

DGIF understands that the VA Department of Conservation and Recreation's Division of Natural Heritage (DCR-DNH) has documented the occurrence of the State Threatened Wood turtle in the project vicinity. As with any long-lived and slow-reproducing species, the loss of a single wood turtle can have a devastating effect on the entire population.

Recommendations: DGIF recommends that:

- A habitat assessment for these species be completed within the project area. Wood turtles are found primarily in and around clear brooks and streams in deciduous woodlands. Although highly terrestrial, wood turtles typically remain in moist areas. Based on DGIF's review of the habitat assessment, if there is no appropriate habitat for this species, then DGIF does not anticipate a significant adverse impact upon it.
- If any clearing or construction activities are proposed to occur within or in the vicinity of appropriate habitat for this species, DGIF recommends that, immediately prior to the start of activities, a qualified and permitted biologist conduct a survey for wood turtles.
- Any wood turtles encountered should be safely relocated to suitable habitat within the nearest perennial stream.

- Prior to relocation, all turtles should be permanently marked for future identification and monitoring. It is important that this survey and relocation occur immediately prior to clearing and/or construction to minimize the chance that any turtles will wander into the project area.
- ROW maintenance (mowing, vegetation clearing, and herbicide application) within 600-feet of a perennial stream should not occur during the wood turtle nesting season, April 1 to October 15, in order to mitigate for long-term impacts upon this species.
- If any wood turtles are encountered and in jeopardy during the development, construction, or continued maintenance of this project, immediately remove them from the project site, return them safely to suitable habitat in the nearest perennial stream, and contact DGIF at (804) 367-8999.
- Prior to the start of this project, all contractors should be trained in the identification and basic natural history of wood turtles. An appropriate information sheet to distribute to contractors could include the following text below and a photo of a wood turtle:

"The wood turtle is a State Threatened species that may be found in or near the project area."

The information sheet could include this description:

A medium sized semi-terrestrial turtle, adults are 6-8 inches long. The dull brown upper shell is very rough; each section of the shell is composed of growth rings that form an irregular pyramid. The bottom shell is yellow with black blotches. It has a black head and dark brown extremities. The yellow to burnt orange skin on the neck and in the leg sockets is a distinguishing characteristic. If one of these turtles is found within the project area, it should be carefully removed to safety in suitable habitat (a run or deep pool with sandy or muddy bottom and submerged roots, branches, or logs) within the nearest perennial stream. It is a violation of Virginia law to harm or keep for personal possession a wood turtle. If you have any questions concerning this species, please call the Virginia Department of Game and Inland Fisheries at 804-367-8999 or check DGIF website at

<http://www.dgif.virginia.gov/wildlife/species/display.asp?id=030062>."

- As with the protected species (above), additional coordination is recommended; see "Regulatory and Coordination Needs," Item 8 on page 29.

(iv) Other Species.

Recommendations for Freshwater Mussels: DGIF recommends that:

- Dominion must coordinate with DGIF regarding potential adverse impacts upon freshwater mussels, if any crossings or other activities are proposed within perennial streams.
- Typical recommendations to avoid impacting mussels may include conducting a mussel survey and relocation in the vicinity of the crossing and/or following an in-stream time-of-year restriction to avoid the mussel spawning season.
- Please contact DGIF mussel biologist Brian Watson (434) 525-7522. As with the protected species (above), additional coordination is recommended; see "Regulatory and Coordination Needs," Item 8 on page 29.

6(c) In-stream Work: Constraints and Precautions. If any work is necessary within wetlands or within 100-feet of any stream, DGIF supports the proposal to clear vegetation only by hand. DGIF recommends the following:

- No herbicides must be used within 100 feet of any wetland or stream.
- Conduct in-stream activities during low- or no-flow conditions;
- Use non-erodible cofferdams to isolate the construction area;
- Block no more than 50% of the streamflow at any given time;
- Stockpile excavated material in a manner that prevents reentry into the stream;
- Restore original streambed and streambank contour;
- Re-vegetate barren areas with native vegetation; and
- Implement strict erosion and sediment control measures.
- Use clear span bridges to cross stream to the extent practicable. Due to future maintenance costs associated with culverts, and the loss of riparian and aquatic habitat, DGIF prefers stream crossings to be constructed via clear-span bridges. However, if this is not possible, DGIF recommends countersinking any culverts below the streambed at least 6 inches, or the use of bottomless culverts, to allow passage of aquatic organisms.
- Install floodplain culverts to carry bank-full discharges.

6(d) Compensatory Mitigation. DGIF recommends providing compensatory mitigation for unavoidable impacts to PFO wetlands at a ratio of at least 2:1, PSS wetlands at a ratio of at least 1.5:1, and PEM wetlands at a ratio of at least 1:1, and for impacts to streams at a ratio of at least 1:1 based on full restoration of a similarly functional stream. Increased credit ratios may be necessary for preservation and enhancement activities, and threatened/endangered species mitigation.

6(e) Additional Wildlife Information. The Department of Game and Inland Fisheries maintains a database of wildlife locations, including threatened and endangered species, trout streams, and anadromous fish waters. This database is on the Department's website:

http://www.dgif.virginia.gov/wildlife/info_map/index.html.

Subscriptions to the VAFWIS are available. Questions about this database may be addressed to Shirl Dresser, Department of Game and Inland Fisheries, (804) 367-6913.

Questions about these recommendations may be addressed to Andrew K. Zadnik, DGIF Environmental Services Section Biologist at (804) 367-2733. See also "Regulatory and Coordination Needs," Item 8 on page 29.

7. Erosion and Sediment Control; Stormwater Management. Erosion and Sediment Control; Stormwater Management requirements applicable to the 7th Alternative is similar to those reported in DEQ's June 30, 2005 correspondence. Electric companies that undertake land-disturbing activities of 10,000 square feet or more for construction, installation, and maintenance of transmission lines (including essential supporting activities within and outside the easement) must file general erosion and sediment control specifications annually with the Department of Conservation and Recreation's Division of Soil and Water Conservation for review and approval in accordance with the Virginia Erosion and Sediment Control Law (*Virginia Code* section 10.1-563.D.).

7(a) Scope of Land-Disturbing Activities. The supporting activities contributing to the land disturbance threshold above include, but are not limited to, substations, staging areas, access roads, and borrow or spoil areas.

7(b) Regulated Activities; Locations. Regulated activities include the supporting activities (above) that take place on company property or an easement (including Department of Transportation rights-of-way) owned by another party.

7(c) Specifications. Erosion and sediment control specifications must include, at a minimum, a description of all measures and policies that will be implemented on the site to ensure compliance with the state program. Standard practices (general narrative and plan sheets with appropriate details,

symbols, etc.) must be provided and must meet the requirements of the 19 Minimum Standards (MS) found in the Virginia Erosion and Sediment Control Regulations (4 VAC 50-30-40) that apply to company activities. Practices found in the *Virginia Erosion and Sediment Control Handbook* must serve as minimum design criteria. Any variance requests (especially those for MS-16, trench length) must be submitted for approval on a project-specific basis to ensure that site-specific characteristics (soils, topography, adjacent areas) are fully considered.

Company-specific specifications covering all planned regulated activities for the calendar year in which the activity will be undertaken must be approved by the Department of Conservation and Recreation's Division of Soil and Water Conservation prior to initiation. See "Regulatory and Coordination Needs," Item 2(a), below.

7(d) Stormwater Management. Projects involving the disturbance of one acre or more of land area are subject to general permit coverage under the Virginia Pollutant Discharge Elimination System (VPDES) Stormwater General Permit for Construction Activities. Administration of this permit program has been transferred from the Department of Environmental Quality to the Department of Conservation and Recreation. See "Regulatory and Coordination Needs," Item 2(b), below.

8. Health Effects of Electromagnetic Fields (EMF). Dominion's document titled "*W & OD Trail Route Supplement to Routing Study and Environmental Report*," does not appear to address the Health Aspects of EMF. The application document (Volume I of III, pages 115-121) mentions the Health Aspects of EMF. The Virginia Department of Health did not provide comment on the potential health effects of EMF.

9. Historic Structures and Archaeological Resources. The Department of Historic Resources (DHR) restated its earlier concerns (July 2, 2004 letter to Dominion Virginia Power, attached).

The Washington and Old Dominion (W&OD) Railroad and associated resources are eligible for listing on the National Register of Historic Places. Construction of the line along the proposed route will most likely have an effect on this resource. The introduction of such a prominent, non-historic element to the landscape could negatively impact the integrity of setting and feeling, which are important aspects of a site's significance as defined in the National Register criteria for evaluation (36 CFR 60.4). In addition, the Paeonian Springs and Leesburg Historic Districts, located along the W&OD, are listed in or eligible for the National Register. Effects of the project on these and other historic properties along the W & OD need to be considered. Accordingly, DHR recommends against locating the transmission line in the W & OD right-of-way and encourages the consideration of alternate routes.

Summary of DHR's Recommendations:

- DHR recommends against locating the transmission line in the W & OD right-of-way and encourages the consideration of alternate routes. As a possible alternative, consider installation of the line along the Route 7 corridor.
- The potential impact to cultural resources should be considered in the design and approval of this project.
- DHR encourages Dominion to take into consideration not only direct impacts, such as the location of a portion of the power line on a National Register-listed property, but also indirect impacts, such as the effect of the line on the viewshed.
- DHR continues to urge Dominion to bury at least a portion of the line to minimize the potential viewshed issues related to historic properties.
- Field investigations will be necessary to identify and evaluate cultural resources. Only after a full inventory of cultural resources has been developed may the full effects, both direct and visual, of the project be determined.
- DHR encourages Dominion to continue to solicit public comment and to identify consulting parties pursuant to Section 106 of the National Historic Preservation Act.

According to DHR, Historic Structure and Archaeological Resource Regulatory and Coordination Requirements applicable to the 7th Alternative are the same as those reported in DEQ's June 30, 2005 correspondence (January 20, 2006; telephone communication; Aschenbach/Kirchen). The SCC and Dominion are asked to refer to DEQ's June 30, 2005 correspondence, and direct questions and coordination to Roger Kirchen (804) 367-2323, extension #153 or email: roger.kirchen@dhr.virginia.gov, for more information. See also Regulatory and Coordination Needs, Item 7, below.

10. Transportation. The Department of Transportation (VDOT) states that the 7th Alternative crosses several existing highways and runs through the corporate limits of the Town of Leesburg. As outlined in the table below listing proposed highway improvements (contained in either the Loudoun County Comprehensive Plan, the Town of Leesburg Comprehensive Plan, or the adopted Constrained Long Range Plan (CLRP) for the metropolitan Washington Region), the majority of roadways to be crossed are not currently planned for expansion or major improvement, and thus their crossing by the new transmission line will likely have minimal impacts on traffic and will not preclude future improvement.

VDOT also notes that, the W & OD Trail is currently a park facility managed by the Northern Virginia Regional Park Authority (NVRPA) and is used by hikers, cyclists, and equestrians. Since the Trail passes close to several residential areas, the NVRPA and local residents will likely submit comments on the new alternative. VDOT believes that the Loudoun County Board of Supervisors has already gone on record opposing the use of the Trail for the new towers.

11. State Scenic and Recreational Facilities. The Department of Conservation and Recreation's Division of Planning and Recreation Resources (DCR – DPRR) stated that DCR reviews all projects from a recreational and scenic perspective. As development continues to consume land that would historically be classified as open space, it is imperative that protected lands and recreational areas remain untouched. Though the first inclination is to select the most direct route for placing transmission lines and pipe corridors, the most direct route is typically not suited to the best interest of the community and its natural resources. The review of the proposed transmission alignments shows that the outlined corridor will impact several scenic byways and the W & OD Trail.

The following Virginia Scenic Byways would be impacted by the 7th Alternative. With this in mind, every effort must be made to preserve the scenic qualities of the roadways listed below:

- **Route 15** – through the entire County of Loudoun.
- **Route 699 (Dry Mill Rd.) – Loudoun Street** in downtown Leesburg to Route 7 west of town.
- **Route 704 (Harmony Church Rd.)** – from Route 15 to Route 7 in Hamilton.
- **Route 7 (old Leesburg Pike)** – from the intersection of Route 7 & 699 along the old route to Hamilton.

According to DCR – DPRR, depletion of the scenic value of any of these corridors will have impacts beyond the local citizens who use them regularly. These roads are shown on one of the most widely distributed maps of the state, “A Map of Scenic Roads in Virginia.” This tourism tool shows not only designated scenic roads, but also recreational, natural, historic and other key sites of touring interest. Scenic Byways are briefly addressed in Dominion's Application to the State Corporation Commission.

With respect to the alignments proposed along and across the W & OD Trail, DCR is against any such alignment, unless it avoids removal of trees. Due to the unique nature and state and national significance of the trail and the park, the existing condition of the corridor should be maintained in order to protect its park, recreational, and scenic values.

Other advantages of maintaining both the W & OD Trail and the Scenic Byways are to help protect the air quality of the area, provide opportunities for less stressful touring, to provide safe venues for experiencing nature, and protect the scenic assets that provide tranquil settings for future generations.

DCR would like to be notified of all impacts when the final alignment is considered. DCR may want to review detailed plans for crossings and parallel alignments to ensure that the impacts do not severely affect the corridor or reduce the scenic assets of the corridors. DCR – DPRR also noted that crossings of the trail and byways needs to be done on an angle and in such a manner as to have as little impact as possible.

In its earlier comments (DEQ's June 30, 2005 correspondence), DCR supports an alternative that avoids impacts to the Washington and Old Dominion Trail. This trail is a National Recreation Trail and should not be affected by construction activities, clearing of trees or other vegetation, or disruption of public recreational and commuting use. For additional information, the applicant may contact the Department of Conservation and Recreation (Bob Munson, telephone (804) 786-6140).

12. Pollution Prevention. DEQ advocates that principles of pollution prevention be used in all construction projects as well as in facility operations. Effective siting, planning, and on-site Best Management Practices (BMPs) will help to ensure that environmental impacts are minimized. However, pollution prevention techniques also include decisions related to construction materials, design, and operational procedures that will facilitate the reduction of wastes at the source. We have several pollution prevention recommendations that may be helpful in constructing or operating this project:

- Consider development of an Environmental Management System (EMS). An effective EMS will ensure that the proposed facility is committed to minimizing its environmental impacts, setting environmental goals, and achieving improvements in its environmental performance. DEQ offers EMS development assistance and recognizes facilities with effective Environmental Management Systems through its Virginia Environmental Excellence Program.
- Consider environmental attributes when purchasing materials. For example, the extent of recycled material content, toxicity level, and amount of packaging should be considered and can be specified in purchasing contracts.
- Consider contractors' commitments to the environment (such as an EMS) when choosing contractors. Specifications regarding raw materials and construction practices can be included in contract documents and requests for proposals.
- Choose sustainable materials and practices for infrastructure construction and design. These could include asphalt and concrete containing recycled materials, and integrated pest management in landscaping, among other things.
- Integrate pollution prevention techniques into facility maintenance and operation, to include the following: inventory control (record-keeping and centralized storage for hazardous materials), Maintenance facilities should be designed with sufficient and suitable space to allow for effective

inventory control and preventive maintenance.

DEQ's Office of Pollution Prevention provides free information and technical assistance relating to pollution prevention techniques and EMS. If interested, Dominion may contact that Office (Tom Griffin, telephone (804) 698-4545).

13. *Geologic Resources.* The Department of Mines, Minerals, and Energy (DMME) stated that the 7th Alternative is unlikely to affect geology or mineral resources. Questions pertaining to the geology or mineral resources of the Commonwealth may be addressed to Matt Heller at the DMME (telephone (434) 951-6351).

DCR's Division of Natural Heritage (DCR – DNH) comments regarding the 7th Alternative reiterate that, the DCR – DNH Biotics Data System documents occurrences of diabase flatrock in the vicinity of the 7th Alternative. For more information, please see Environmental Impacts and Mitigation, Item 5(g) Semi-open Diabase glades, and Diabase flatrock support rare plant communities, above.

According to DMME's earlier comments (DEQ's June 30, 2005 correspondence), Diabase rock, which is a potential aggregate resources is present in the easternmost portion of the proposed route. For additional information, contact Matt Heller of DMME at (434) 951-6340.

14. *Regional and Local Concerns.* Loudoun County stated that it has several Plans that pertain to the study area. All of these documents can be found on the County's website.

- Revised General Plan, CTP, Plan Amendments, and Adopted BOS Maps: http://inetdocs.loudoun.gov/planning/docs/compplan_/index.htm
- Revised 1993 Zoning Ordinance: http://inetdocs.loudoun.gov/b&d/docs/1993zoningordin_/index.htm

"The Loudoun County Board of Supervisors (Board) continues to oppose any installation of the proposed facility along the W & OD Trail and continues to support the underground installation of the proposed facility (see attached November 15, 2005 Board of Supervisors Resolution). The Revised General Plan policies specify the grouping and burying of utility lines and facilities to the extent permitted by law (Revised General Plan, Policy 1, p. 2-24).

The Loudoun County Board of Supervisors (Board) initially passed a resolution on July 6, 2004 opposing the power line proposal by Dominion Virginia Power (see Attachment). The Board continued to express concerns pertaining to an above-ground transmission line proposed by Dominion, and approved another resolution on October 19, 2004 (see Attached). This resolution also included the Board's recommendation of the Route 7 corridor, including the industrial portion of Cochran Mill Road as access to Route 7, as the primary route for the proposed project and the use of underground construction as the preferred method of installation.

The Revised General Plan supports the timely delivery of gas, electrical, and communication services to businesses and households as development occurs, but seeks to minimize negative visual impacts through regulations and the Commission Permit process (Revised General Plan, Text, p. 2-23). When reviewing an application the County evaluates the land use, environmental, visual, and transportation impacts of the proposed project. The Energy and Communication Policies outlined in the Revised General Plan (p. 2-23) provide policy guidance for the power line “use” itself. These policies specifically call for proponents of public utility expansions to replant and/or reforest and screen from adjacent uses (Revised General Plan, Policy 2, p. 2-24). Plan policies also recommend sufficient separation of high-tension power lines from adjacent residential uses to minimize any scientifically recognized potential health and safety risk (Revised General Plan, Policy 3, p. 2-24).

The Green Infrastructure policies outlined in the Revised General Plan (Chapter 5) provide policy guidance for environmental, natural, and heritage resources. The Revised General Plan recognizes a Countywide network of natural, cultural, heritage, environmental, protected, passive and active resources as constituting the Green Infrastructure of the County, to be integrated in a related system and providing the framework for all land planning activities (Revised General Plan, Policy 1, p. 5-1). The County’s strategy is to protect existing Green Infrastructure elements and recapture elements where possible (Revised General Plan, Text, p. 6-8). The Revised General Plan calls for the preservation and protection of the W & OD Trail as part of the County’s Green Infrastructure elements as an important scenic resource (Revised General Plan and Loudoun County Bicycle & Pedestrian Mobility Master Plan, Text, pp. 5-39 & 16). Plan policies call for special provisions such as additional setback depths, protections against clearing frontage vegetation and for maintaining other features in designated scenic areas and corridors (Revised General Plan, Policy 1, p. 5-39). The W & OD Trail is also an important transportation corridor, and County policy is intended to promote community connections to the Trail (Loudoun County Bicycle & Pedestrian Mobility Master Plan, Policies 1-4, p. 58).

In addition to the Revised General Plan, there are four area plans that provide policy direction for the areas in which the W & OD Trail is located (Eastern Loudoun, Leesburg, Hamilton, and Purcellville). These area plans call for protection of the Trail as a scenic and historic resource. The Eastern Loudoun Area Management Plan (ELAMP) calls for “designation of a 75-foot open space buffer on both sides of the W & OD Regional Trail to preserve this open space asset from development encroachment” (ELAMP, Policy 1, p. 112). In addition, it identifies the W & OD Trail right-of-way and buffer area as an important historic resource and calls for its protection through inclusion in the County’s Historic District Overlay (ELAMP, Policy 2c, p. 260). The Leesburg Area Management Plan (LAMP) specifically calls for visual and noise buffering along the W & OD Trail (LAMP Policy c, p. 42). In addition, the W & OD Trail is noted as a priority preservation site (LAMP, Policies 5 & 6h, p. 64). The Comprehensive Plan for the Town of Hamilton (Hamilton Plan) calls for public-private coordination to ensure that the area between the W & OD Trail and the Route 7 Bypass becomes publicly-owned to be used as a park, and possibly integrated into the W & OD Trail (Hamilton Plan, Policy 7, p. 39). The Purcellville Urban Growth Area Management Plan (PUGAMP) calls for the burying of utility lines to the extent possible, separation of lines and towers from residential uses, and buffering of utilities (PUGAMP, Policy 1, p. 50). The Town of Leesburg also has a plan that identifies the W & OD Trail as one of the Town’s most valuable assets (Town of Leesburg Plan, Text, p. PR-1). Plan objectives call for the “protection of the W & OD Trail corridor

from development, intrusion from the proposed power lines, or other utilities” (Town of Leesburg Plan, Objective 3c, p. PR-2).

The County expects to be actively involved as the project moves forward. If you have any questions regarding these comments please contact Marie Genovese, Planner in the Department of Planning at (703) 777-0246.”

See also “Regulatory and Coordination Needs,” Item 9 on page 29.

The Northern Virginia Planning District Commission did not provide comments in response to DEQ’s request for comments on the 7th Alternative.

Regulatory and Coordination Needs

1. Water Quality and Wetlands. DEQ’s Northern Virginia Regional Office indicates that in accordance with 9 VAC 25-210-50 of the Virginia Water Protection (VWP) Permit regulations, a VWP permit from the Virginia Department of Environmental Quality (DEQ) will be required for the proposed impacts to wetlands and streams. Upon receipt of a Joint Permit Application for the proposed wetland and stream impacts, DEQ-VWP Permit staff will review the proposed project in accordance with the VWP permit regulations and current VWP permit guidance. Questions on this matter, and on water resources permitting, may be addressed to DEQ’s Water Quality Division (Catherine M. Harold, telephone (804) 698-4375 or David Davis, telephone (804) 698-4105) or DEQ’s Northern Regional Office (Joan Crowther, telephone (703) 583-3801).

2. Erosion and Sediment Control; Stormwater Management.

2(a) Erosion and Sediment Control and Stormwater Management.

Dominion must comply with Virginia's Erosion and Sediment Control Law (Virginia Code 10.1-567) and regulations (4 VAC 50-30-30 et seq.) and Stormwater Management Law (Virginia Code 10.1-603.5) and regulations (4 VAC 3-20-210 et seq.). Dominion may contact DCR’s Potomac River Watershed Office (telephone, (540) 347-6420), for assistance with developing or implementing E&S and/or Stormwater Management Plans to ensure project conformance during and after construction. Questions regarding the Erosion and Sediment Control annual specifications mentioned above (“Environmental Impacts and Mitigation,” Item 6(c)) may be addressed to the Department of Conservation and Recreation’s Division of Soil and Water Conservation (Eric Capps, Erosion & Sediment Control and Construction Permitting Manager, telephone (804) 786-3957).

2(b) Stormwater Management: VPDES Stormwater Permits for

Construction Activities. As mentioned above (“Environmental Impacts and Mitigation,” Item 6(d)), proponents of projects involving land disturbance of one acre or more must apply for coverage under the Virginia Pollutant Discharge

Elimination System (VPDES) General Permit for Discharges of Stormwater from Construction Activities. This program covers municipal separate storm sewer systems (MS4s) and other construction activities. Information and registration forms are available on the Department of Conservation and Recreation's web site:

<http://www.dcr.virginia.gov/sw/vsmp.htm#geninfo>.

Specific questions on program requirements may be addressed to the Department of Conservation and Recreation's Division of Soil and Water Conservation (Mr. Lee Hill, Assistant Director, Stormwater Management Programs, telephone (804) 786-3998 or e-mail lee.hill@dcr.virginia.gov).

3. Subaqueous Lands Encroachment. Pursuant to Section 28.2-1204 of the Code of Virginia, the Marine Resources Commission has jurisdiction over any encroachments in, on, or over any State-owned rivers, streams, or creeks in the Commonwealth. Accordingly, if any portion of the subject project involves any encroachments channelward of ordinary highwater along natural rivers and streams, a permit may be required by VMRC. For additional information please contact the Commission (telephone (757) 247-2200).

4. Solid and Hazardous Waste Management, and DEQ – Federal Facilities Restoration Program. Dominion must comply with all applicable Federal, State, and local laws and regulations, such as the Code of Virginia Section 10.1-1400 *et seq.*; Virginia Hazardous Waste Management Regulations (VHWMR) (9VAC 20-60); Virginia Solid Waste Management Regulations (VSWMR) (9VAC 20-80); Virginia Regulations for the Transportation of Hazardous Materials (9VAC 20-110); and the Resource Conservation and Recovery Act (RCRA), 42 U.S.C. Section 6901 *et seq.* See “Environmental Impacts and Mitigation,” Item 4(c) and 4(d), above. For additional information and coordination concerning the location and availability of suitable waste management facilities in the project area or if free product, discolored soils, or other evidence of contaminated soils are encountered, please contact DEQ's Northern Virginia Regional Office (John Bowden, Deputy Regional Director, telephone (703) 583-3801).

DEQ – Federal Facilities Restoration Program. Should evidence of unknown/suspected DoD activities be observed during the transmission line installation, please contact the USACE Norfolk District Office immediately. According to the USACE Norfolk District Office website, its Emergency Response Mission telephone number is (202) 761-1001. Questions concerning the DEQ – Federal Facilities Restoration Program should be addressed to Erik Salopek of DEQ – FFR at (804) 698-4427.

5. Air Quality Regulation. This project may be subject to air regulations administered by the Department of Environmental Quality. During construction, fugitive dust must be kept to a minimum by using control methods outlined in 9 VAC 5-50-60 *et seq.* of the Regulations for the Control and Abatement of Air

Pollution. If project activities include the burning of material, this activity must meet the requirements under 9 VAC 5-40-5600 *et seq.* of the Regulations for open burning, and it may require a permit. For additional information and coordination pertaining to Regulations for the Control and Abatement of Air Pollution, please contact Terry H. Darton, DEQ – Northern Virginia Regional Office (NVRO) at (703) 583-3845.

6. Transportation. Any project work with the potential to affect roads or other transportation facilities should be coordinated with the Department of Transportation. The applicant must coordinate closely with VDOT to ensure that transportation is adequately addressed (See “Environmental Impacts and Mitigation,” Item 10, above). The applicant should contact Mary Stanley of VDOT at (804) 786-0868 for additional information.

7. Historic Structures and Archaeological Resources. If there is federal involvement, it is the responsibility of the federal agency, under Section 106 of the National Historic Preservation Act, as amended, and its implementing regulations at 36 CFR 800, to define the Area of Potential Effect (APE) and to provide to the Department of Historic Resources, Virginia’s State Historic Preservation Office (SHPO), a recommendation concerning the project’s effect on historic properties. For more information, contact Roger Kirchen at (804) 367-2323, extension #153 or email: roger.kirchen@dhr.virginia.gov.

8. Protected Species. Dominion must comply with the Federal Endangered Species Act (16 U.S.C. sections 1531 *et seq.*), and Virginia protected species legislation (Virginia Code §29.1-563 *et seq.*). See “Environmental Impacts and Mitigation,” Items 5 and 6 (pages 12 through 20). Dominion should direct questions regarding protected species to Andrew K. Zadnik, DGIF Environmental Services Section Biologist at (804) 367-2733.

9. Regional and Local Concerns: Dominion must coordinate closely with Loudoun County to ensure that local requirements are adequately addressed. See “Environmental Impacts and Mitigation,” Item 14 (pages 25 through 27), above. Questions should be directed to Marie Genovese, Planner in the Loudoun County Department of Planning at (703) 777-0246.